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December 6, 2005

**Ex Parte**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

**Re: Developing a Unified Intercarrier Compensation Regime, CC Docket No. 01-92**

Dear Ms. Dortch:

Today, Amy Rosenthal and the undersigned met with Jessica Rosenworcel of Commissioner Copps' office and Scott Bergmann of Commissioner Adelstein's office to discuss Verizon's proposed solutions for phantom traffic. Verizon's comments were consistent with the attached hand-out which was used as a basis for discussion in the meeting.

Sincerely,

A handwritten signature in black ink that reads "Donna Epps". The signature is written in a cursive, flowing style.

Attachment

cc: Tamara Preiss  
Steve Morris



## *“Phantom Traffic” Solutions*

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- ♦ **“Phantom traffic” is a multi-faceted issue that calls for multiple solutions**
    - “Phantom traffic” is the result of several different underlying causes
    - Different solutions are needed to address different underlying causes

## *Phantom Traffic*

### *What is Phantom Traffic?*



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- ♦ The term “phantom traffic” has been used to refer to two types of traffic:

(1) traffic that purportedly lacks identification of the carrier to be billed; and

(2) traffic that purportedly lacks sufficient information to determine jurisdiction for billing

## *Phantom Traffic*

### *Carrier Identification*

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- ♦ **The carrier to be billed is identified on terminating access records by either a Carrier Identification Code (CIC code) or an Operating Company Number (OCN).**
- ♦ **Industry guidelines establish when OCN versus CIC should be used on terminating access records.**

## ***Non-Regulatory Solutions***

### ***Carrier Identification***

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**Understanding industry guidelines regarding use of CIC or OCN aids carriers using terminating access records to identify the carrier to be billed.**

- Identification of the carrier to be billed enables terminating carriers to protect themselves against the negative effects of “phantom traffic”
  - Verizon has assisted carriers in understanding carrier identification data on terminating access records
- Transit providers that identify the carriers to be billed should not be held responsible for any inaccurate or invalid information received by the transit provider from those carriers

# *Phantom Traffic*

## *Jurisdictional Information*



- ♦ **What is the relevant jurisdictional information?**
  - CPN
  - CN
  - Jurisdictional Information Parameter (JIP)
- ♦ **For most types of traffic, Verizon provides terminating carriers with the CPN/CN it receives via a terminating access record. Although SS7 is primarily designed for routing – not billing – Verizon also provides any CPN, CN and JIP it receives via SS7 signaling.**
- ♦ **In some cases, Verizon receives invalid, inaccurate or missing CPN, CN, and/or JIP. In those instances, Verizon can only pass along the data it receives.**

# *Phantom Traffic*

## *Jurisdictional Information*



- ♦ **“Phantom traffic” includes several types of traffic for which jurisdiction may be unclear**
  - Traffic lacks CPN or has patently invalid CPN
    - Intentional misconduct to disguise jurisdiction
    - Technical limitations
  - Traffic carried on local interconnection trunks despite “foreign” CPN or CN
    - Misdirected traffic
    - Non-geographic CPN
  - CPN or CN does not accurately indicate caller’s location
    - Intentional misconduct to disguise jurisdiction
    - Non-geographic CPN



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- ♦ **Some carriers may intentionally disguise jurisdiction by:**
    - Removing, or failing to insert, CPN in signaling
    - Inserting patently invalid CPN in signaling
    - Altering CPN or CN in signaling to suggest a different calling party location

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- ♦ **The FCC should amend its rules to address intentional misconduct to disguise call jurisdiction:**
    - Amend rules to clarify that the CPN signaled must be the true calling party's CPN, unaltered
    - Amend rules to state that if a carrier signals CN, the CN must be the true calling party's CN, unaltered
    - Amend rules to clarify that carriers must not modify or delete the calling party's CPN or CN in the SS7 stream in any way that is inconsistent with industry standards and that reflects a different geographic location of the calling party

## *Phantom Traffic*

### *Misdirected Traffic*



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- ♦ **In areas served by local number portability (LNP) or thousands block pooling, efficient network routing requires the “N-1” carrier to query the LNP database to determine the location of the called number.**
  - ♦ **If the “N-1” carrier does not perform the LNP query, and the called number was ported or pooled:**
    - The N-1 carrier may erroneously route the call to the donor end office
    - The donor end office must route the call, using local interconnection trunks, to the end office where the called number actually resides
    - Call may be “double-tandemed”
    - Network resources are deployed inefficiently

## *Phantom Traffic*

### *Misdirected Traffic*



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- ♦ **Third Report and Order, paragraph 15:**

“The industry has proposed, and the Commission has endorsed, an “N minus one” (N-1) querying protocol.

Under this protocol, the N-1 carrier will be responsible for the query, ‘where ‘N’ is the entity terminating the call to the end user, or a network provider contracted by the entity to provide tandem access.’

*Thus the N-1 carrier (i.e. the last carrier before the terminating carrier) for a local call will **usually** be the calling customer's local service provider; the N-1 carrier for an interexchange call will **usually** be the calling customer's interexchange carrier (IXC).”*

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- ♦ **NANC's Recent Recommendation:**

“[F]or a local call the originating carrier **is** also the N-1 carrier and is responsible for performing the query in its network or contracting with another entity to perform the queries on its behalf.

Similarly, for interLATA toll calls the interexchange carrier **is** the N-1 carrier and is responsible for performing the necessary query.”

NANC LNP Working Group Recommendation, July 25, 2005

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- ◆ **The FCC should take action to minimize misdirected traffic:**
    - Clarify that for local calls, the originating carrier is the N-1 carrier and is responsible for either performing the LNP query in its network, or contracting with another entity to perform the queries on its behalf
    - Clarify that for interLATA toll calls, or intraLATA toll calls carried by an IXC, the interexchange carrier is the N-1 carrier and is responsible for either performing the LNP query in its network, or contracting with another entity to perform the queries on its behalf
    - Clarify that when a carrier performs only a transiting function for a call, it is not the N-1 carrier for that call

## *Phantom Traffic*

### *Beyond Misconduct And Misrouting*



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- ♦ **Some of the traffic that purportedly lacks sufficient jurisdictional information is inevitable:**
    - Technical limitations
    - Non-geographic telephone numbers
      - Telephone number may not reflect jurisdiction
      - Calls with “foreign” telephone numbers may be carried on local interconnection trunks

# *Phantom Traffic*

## *Beyond Misconduct And Misrouting*



- ♦ **Determining jurisdiction is an industry-wide billing issue affecting all carriers, including Verizon**
  - Approximately 20 percent of all traffic that's delivered to Verizon's network lacks a valid CPN/CN.
    - Approximately  $\frac{3}{4}$  of those calls terminate on Verizon's network.
    - The remaining  $\frac{1}{4}$  is transit traffic that terminates on other carriers' networks.
  - Transit traffic lacking valid CPN/CN negatively impacts Verizon's ability to bill for transit.



## *Non-Regulatory Solutions*

### *Beyond Misconduct And Misrouting*



- ♦ **Verizon and other carriers have used contractual arrangements and access tariff provisions to address billing for traffic for which jurisdiction is unclear**
  - Use of factors to jurisdictionalize traffic with invalid or missing CPN/CN
  - Use of factors to jurisdictionalize traffic from carriers with non-geographic CPN/CN
  - Terms providing for special treatment of traffic with invalid or missing CPN/CN above specified threshold levels
- ♦ **Other carriers, including rural carriers, can and should use similar contractual arrangements and access tariff provisions to govern billing for traffic for which jurisdiction is unclear**

## ***Non-Regulatory Solutions Beyond Misconduct And Misrouting***



- ♦ **Contractual arrangements can address traffic from CMRS and local exchange carriers for which jurisdiction is unclear**
  - Terminating access records identify the relevant carriers for negotiation
  - Contractual agreements can be limited to billing arrangements. Full interconnection agreements may often be unnecessary.
  - *T-Mobile* decision provides incumbent local exchange carriers the ability to compel negotiations with CMRS providers and to true-up billing back to date of request.
  - FCC may expand the *T-Mobile* ruling to provide incumbent local exchange carriers the ability to compel negotiations with non-CMRS providers
  - Contractual disputes resolved according to contract provisions
- ♦ **Access tariffs can address traffic from interexchange carriers for which jurisdiction is unclear**

## ***Non-Regulatory Solutions Beyond Misconduct And Misrouting***



- **Contractual arrangements and tariff provisions provide the best solution to the billing issues surrounding traffic for which jurisdiction is unclear**
  - Both contracts and tariffs can provide relief for all types of so-called “phantom traffic”
  - Both deter intentional misconduct
  - Both provide relief for “phantom traffic” in the short term
    - *T-Mobile* permits terminating carriers to “true up” agreed terms back to the date of the negotiation request
  - Contracts provide deregulatory solution that relies on commercial agreements

# *Phantom Traffic Solutions*

## *Summary*

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- 1) Tandem providers that identify the carrier to be billed should not be held responsible for inaccurate or invalid information received from those carriers.**
- 2) The FCC should clarify and amend traffic labeling and routing rules to address intentional misconduct and to minimize improper routing.**
- 3) Terminating carriers should use contractual agreements and access tariff provisions to address billing traffic for which jurisdiction is unclear.**